REMARKS

Applicant appreciates the consideration shown by the U.S. Patent Office, as evidenced by the September 8, 2008 Office Action. In that Office Action, out of claims 1-37, claims 1-37, were rejected. In the present response, claims 8-9 have been cancelled without prejudice. As such, claims 1-7 and 10-37 remain in the application, with amendments to claims 1, 18, 22 and 26. Applicant respectfully requests reconsideration of the application by the Examiner in light of the above amendments and the following remarks in response to the September 8, 2008 Office Action.

During October 20, 2007 examiner interview, the patentability of the claims as presented herein over the references were discussed. Applicant has amended claims 1, 18, 22 and 26 to facilitate prosecution of the application; the amendments are supported by the specification as filed and do not include new matter.

NONOBVIOUSNESS

The claims are not obvious because the cited reference fails to disclose or suggest a catalyst injection system that is mobile and adapted to control the flow of catalyst directly to the FCC unit and also fails to disclose or suggest a process controller coupled to the platform and flow control device for dispensing a metered amount of catalyst from the catalyst reservoir suitable for process control in the fluid catalyst cracking unit.

Nonobviousness over Andon

According to MPEP and past and recent case law, to establish a prima facie case of obviousness, it is and still remains *necessary for* the Office Action to identity the reason why a person **of ordinary skill in the art would have combined the prior art elements in the manner claimed.** Takeda Chemical Industries, Ltd. v. Alphapharm Pty., Ltd. 06-1329 Fed. Cir. 2007. Allegations of 'obvious to try' are not sufficient if "the situation presented was not one with a **finite number** of ***identified*, predictable solutions.**" Takeda Chemical Industries, Ltd. v. Alphapharm Pty., Ltd. 06-1329 Fed. Cir. 2007. Thus, an Examiner must necessarily identify some reason that would have led one of ordinary skill in the art to make the modification.

Claim 1

Andon fails to disclose or suggest a catalyst injection system that is mobile and adapted to control the flow of catalyst directly to the FCC unit and also fails to disclose or suggest a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir suitable for process control in the fluid catalyst cracking unit; and a pressure control system coupled to the platform and the catalyst reservoir for controlling pressure within the catalyst reservoir.

Even the Office Action repeatedly admits Andon fails to disclose "catalyst reservoir configured to be coupled directly to a fluid catalytic cracking unit." (Office Action page 5, last paragraph).

As previously discussed, Andon discloses a catalyst storage tank that is not mobile by itself, nor an injection system. The catalyst storage tank is just capable of '**receiving catalyst**' from trucks or cars and the mobile aspect is the truck; the mobile aspect is also not the tank 10 and addition hopper 16 i.e. injection system, but the truck which delivers catalyst to the catalyst storage tank. Andon's truck cannot and does not disclose or suggest adding catalyst with a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir suitable for process control in the fluid catalyst cracking unit; and a pressure control system for controlling pressure.

In Andon, the catalyst must then subsequently be transferred from the catalyst storage tank to the non-mobile addition hopper (16), which actually delivers the catalyst to an FCC unit because the catalyst storage tank is incapable of delivering catalyst directly to an FCC unit. Andon expressly discloses that the non-mobile hopper 16 is directly coupled to the FCC unit (col. 2 line 26). The valve 28 of the tank (10) may be left open or closed and to the tank (10) and valve (28) is not suitable to control the flow of catalyst directly to the FCC unit:

> "The catalyst storage tank 10 has a bulk fill line 11 fitted with a valve 28 for **receiving catalyst from tank trucks or tank cars, a vent line 2 fitted with an automatic valve 13**, and a catalyst discharge line 14 fitted with automatic valve 15. **The catalyst addition hopper 16 is located** so that its lowest point is about ten feet **below the bottom of the catalyst storage tank 10** and is connected near its top to the other ends of vent line 12 and catalyst addition line 14. … The bottom of addition hopper 16 is shaped to permit full discharge of its contents through discharge line 19. Line 19 is ….. conveys the catalyst to the regenerator section of the fluid catalytic cracker. Col 2. lines 9-26).

Thus, Andon fails to disclose or suggest a process a mobile catalyst injection system comprising a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir suitable for process control in the fluid catalyst cracking unit; and a pressure control system coupled to the platform and the catalyst reservoir for controlling pressure within the catalyst reservoir. Nor has the Office Action demonstrated a reasonable expectation of success. The issue is not whether Andon may merely be modified but whether Andon provides any suggestion or motivation to modify and a reasonable expectation of success in disclosing mobile catalyst injection system comprising a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir suitable for process control in the fluid catalyst cracking unit; and a pressure control system coupled to the platform and the catalyst reservoir for controlling pressure within the catalyst reservoir.

Reference cannot be combined or modified if there is no motivation to modify and is inoperable. In this case, what is mobile or made mobile in Andon is the truck or trailer delivering catalyst, not the injection system i.e., the storage tank (10) and addition hopper (16). Thus, Andon fails to disclose a catalyst injection system that itself is mobile and comprising A flow control device for dispensing a metered amount of catalyst from the catalyst reservoir suitable for process control in the fluid catalyst cracking unit; and a pressure control system coupled to the platform and the catalyst reservoir for controlling pressure within the catalyst reservoir. Such self limiting structural and functional restrictions of Andon are not just differences in degrees, but differences in kind which teach away from, is inoperable, and is not properly combinable or modifiable to disclose a mobile catalyst injection system comprising a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir suitable for process control in the fluid catalyst cracking unit; and a pressure control system coupled to the platform and the catalyst reservoir for controlling pressure within the catalyst reservoir.

Furthermore, as previously stated in Martin Evan's declaration and attached references, one of ordinary skill would not be motivated to modify and could not modify by bypassing the catalyst storage tank based on an alleged capital savings, labor, and or square footage, because such modification(s), instead of decreasing, would actually increase capital cost, labor, and or square footage.

In addition to Andon's failures to disclose or suggest discussed above, Andon is incapable of discharging catalyst from a lower pressure environment to a higher pressure system such as an FCCU (fluid catalytic cracking unit) and is inoperable to bypass the catalyst storage tank. Each undisclosed element independently refutes the unsupported allegations of obviousness. As stated in Martin Evan's declaration, trucks of the type disclosed in Andon are designed for a maximum pressure of about 15 psi in contrast to the operational pressure of most FCCU which is from about 20 up to 40 psi. The operational pressures of an FCCU are known to one of ordinary skill in the art, as previously stated in Martin Evan's declaration and attached references. Hence, trucks, as disclosed in Andon, are inoperable to bypass the catalyst storage tank and discharge into a higher pressure system of the FCCU because pressure differential from the truck to the FCCU is in wrong direction as catalyst cannot flow from low pressure to high pressure.

Reference cited by Examiner is an old US patent 3,893,905 which does not refute that FCC units have pressures ranging from about 20 psi up to 40 psi. Furthermore, contrary to the old US patent 3,893,905 reference, Andon does not disclose that FCC unit pressure is lower than truck's pressure and hence Andon does not disclose discharging catalyst from truck to FCCU is possible because catalyst would allegedly flow from higher to lower pressure. Thus, Andon would be inoperable to bypass the catalyst storage tank and discharge into a higher pressure system of the FCCU because pressure differential from the truck as to the FCCU is in wrong direction as catalyst cannot flow from low to high pressure

Assuming arguendo, even if operational pressures of an or some FCC units are less than 20 psi, Andon is inoperable to disclose mobile catalyst injection system comprising a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir suitable for process control in the fluid catalyst cracking unit; and a pressure control system coupled to the platform and the catalyst reservoir for controlling pressure within the catalyst reservoir. The trucks of the type disclosed in Andon also do not have the dispense control required for discrete adding discrete metered amount catalyst to an FCCU required for process control.

Regarding labor and capital, labor and capital are actually increased because more than 1 truck is needed. Contrary to the Office Action's allegation that another second truck would only be required when the decision was made by the FCCU operator to change or replace catalyst in the FCCU with another new or different catalyst, at least 2 trucks are needed because1 truck must

be available to replace the first truck when the first truck becomes empty. At least a second truck must be available to replace the first truck when the first track becomes empty because FCC unit usually does not shut down and if the second truck is not available to supply material/catalyst, the FCC unit would need to shut down. An FCC unit does not normally shut down because doing so would result in tremendous lost in revenue. For example, when a first truck is emptied and runs out of material/catalyst, either one of two things must happen: either a second truck must be present to add new material/catalyst to maintain the running of the FCC unit or the FCC unit must shut down due to shortage of material/catalyst to maintain FCC process as known to one of ordinary skill in the art. Catalyst is added to an FCC unit in a batched metered manner and allegation that "another second truck would only be required when the decision was made by the FCCU operator to change or replace catalyst in the FCCU with another new or different catalyst" erroneously assumes new catalyst is not needed until first truck returns with new material/catalyst which could take days, weeks etc. Such allegations are not true because even though catalyst is regenerated, catalyst must be added to an FCC unit in a batched metered manner for various reasons such as catalyst deactivation and/or process control. Furthermore, such metered addition of catalyst and necessity of a second truck cannot be bypassed by dumping excess catalyst into the FCC unit to account for the time interval of the first truck's return with new material/catalyst which could take days, weeks etc. because dumping a huge unmetered amount of excess catalyst would create a run away process as known to one of ordinary skill in the art. Thus, one of ordinary skill in the art would not and cannot dump huge amounts of excess catalyst in an unmetered amount into the FCC unit to avoid adding catalyst in a batched meter amount because doing so would create run away process and one of ordinary skill in the art would not and cannot avoid the necessity of second truck of catalyst by dumping excess catalyst into the FCC unit which would create run away process.

The cost of a truck is about $68,000-$100,000; hence, the cost of 2 trucks is $138,000-$200,000 (without trailer). See www.arrowtruck.com. Additionally, the use of 2 trucks would require even more catalyst to be available at the refinery. Thus, cost is actually increased in attempts to bypass the catalyst storage tank. Contrary to the Office Action, it is a matter of contract law or Uniform Commercial Code regarding sales of good as to who pays for the cost of the trucks, the supplier or the operator. Examiner has not cited any basis to support that the supplier pays for the cost of the trucks. A supplier and operator have freedom of contract to

decide such matters. Even if the supplier owned the trucks, the cost of ownership is generally passed to the consumer, e.g., the operator, through the cost of the catalyst.

Square footage is also increased as at least 2 trucks are needed to replace 1 truck as another truck is switched in its place. The square footage of an average truck is about 320sq ft compared to average square footage of an injection system which ranges from about 33 to about 224 square ft. For example, average square foot of a truck is length multiplied by width. In this case, the truck has an average width of 8 feet and has a length of about 40 feet which includes length of wheel base and trailer of 18 ft + 22 ft. Hence, an average truck as disclosed in the references has an average square foot 320, which is length of 40 multiplied by width of 8. Furthermore, if 2 trucks are needed, average square footage of 2 truck is about 620 sq ft compared to average square footage of an additional system which ranges from about 33 to about 224 square ft.

Average square foot of an injection system is based on the table and link below of length multiplied by width, ranges from about 33 square ft to 224 sq. ft.

http//www.intercatinc.com/additionsystems.htm

Volume (ft^3)	Capacity (tons)	Height (feet)	Width (feet)	Length (feet)	Vessel Diameter (feet)	Approx Weight (lbs.)
50	1	18	5.5	6.0	3	2500
200	5	21	7.5	7.5	5	5600
500	12	35	11.5	11.5	7	12000
1100	27	44	14.0	12.0	8	26000
2500	62	56	14.5	15.5	10	37500

The other claims are also not obvious because Andon fails to disclose or suggest a catalyst injection system that is mobile and adapted to control the flow of catalyst directly to the FCC unit and also fails to disclose or suggest having a pressure control system and flow control device suitable for process control in the fluid catalyst cracking for a metered amount of catalyst.

Thus, Applicant respectfully submits that the rejection is overcome and independent claims are not obvious. Applicant respectfully submits that as the current independent claims are allowable, the claims which depend from the independent claims are also allowable.

Nonobviousness over Andon in view of Comardo

The claims 1-6, 9, 18, 21, 22, 25, 36, and 37 are not obvious over Andon (U.S. 4,082,513) in view of Comardo (6132157) because the reference in combination fail to disclose or suggest a catalyst injection system that is mobile and adapted to control the flow of catalyst directly to the FCC unit and also fails to disclose or suggest a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir suitable for process control in the fluid catalyst cracking unit; and a pressure control system coupled to the platform and the catalyst reservoir for controlling pressure within the catalyst reservoir.

As discussed above, Andon fails to disclose or suggest a catalyst injection system that is mobile and adapted to control the flow of catalyst directly to the FCC unit and also fails to disclose or suggest a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir suitable for process control in the fluid catalyst cracking unit; and a pressure control system coupled to the platform and the catalyst reservoir for controlling pressure within the catalyst reservoir.

Comardo also fails to disclose or suggest the missing elements. In contrast, Comardo fails to disclose an injection system for FCC unit and a reactor of a fluid catalytic unit and also fails to disclose a pressure control system coupled to the platform and the catalyst reservoir for controlling pressure within the catalyst reservoir. In fact, Comardo actually teaches away by loading of pellets into the reaction tubes of the reactor while the system is *shut down* at *atmospheric pressure*. For example, in contrast to a mobile catalyst injection system for an FCC system having catalyst reservoir for controlling pressure within the catalyst reservoir and adding *catalyst* to the FCC unit while the FCC system is *in operation at high pressure*, Comardo discloses loading of *pellets* into the reaction tubes of the reactor while the system is *shut down* at *atmospheric pressure* wherein the reactor of Comardo is fundamentally different as shown below:

> "catalyst loading system for utilizing catalyst from a bulk supply located adjacent but not on the upper tube sheet of a catalytic reactor and for mechanized measuring of multiple identical quantities of catalyst and for mechanized loading of catalyst pellets into the reaction tubes of the reactor to achieve even drop rate"(Abstract)

Thus, Comardo not only fails to disclose but actually teaches away from a pressure control system for controlling pressure and fails to even disclose any type of injection system for FCC unit and a reactor of an fluid catalytic unit.

References cannot be used to demonstrate obviousness and are not properly combinable or modifiable if the intended purpose is destroyed and teaches away. In this case, Andon and Comardo, either individually or in combination, are not properly combinable or modifiable because the intended purpose is destroyed and teaches away. The self limiting structural and functional restrictions of Comardo's loading of pellets into the reaction tubes of the reactor while the system is *shut down* at *atmospheric pressure* are not just differences in degrees, but differences in kind which teach away from, is inoperable, or is not properly combinable or modifiable to disclose a mobile catalyst injection system for an FCC system having a pressure control system for controlling pressure. A contradictory and teaching away reference such as Comardo cannot provide the motivation to modify Andon without destroying Comardo's intended purpose of loading pellets into the reaction tubes while the system is *shut down* at *atmospheric pressure* as opposed to a mobile catalyst injection system for an FCC system while the FCC system is *in operation at high pressure*.

The other claims are also not obvious because the references fail to disclose or suggest a catalyst injection system that is mobile and adapted to control the flow of catalyst directly to the FCC unit and also fails to disclose or suggest having a pressure control system and flow control device suitable for process control in the fluid catalyst cracking for a metered amount of catalyst.

Applicant respectfully submits that the rejection is overcome and independent claims are not obvious. As current independent claims are allowable, the claims which depend from the independent claims are also allowable.

Nonobviousness over Erickson

The claims 7, 8, 10-12, 17, and 26-3 are not obvious because Ericson fails to disclose or suggest a catalyst injection system that is mobile and adapted to control the flow of catalyst directly to the FCC unit and also having a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir and a pressure control system coupled to the platform and the catalyst reservoir for controlling pressure within the catalyst reservoir.

Erickson fails to fails to disclose or suggest a catalyst injection system that is mobile and adapted to control the flow of catalyst directly to the FCC unit and also having a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir and a pressure control system coupled to the platform and the catalyst reservoir for controlling pressure within the catalyst reservoir. Each undisclosed element independently refute that the present claims are obvious. By words and drawings, Erickson repeatedly only disclose a catalyst storage container (400) that is temporarily and transiently made mobile by being **carried and transported by a trolley**/monorail to a **fresh catalyst silos 68 or 70** and the catalyst must then be transferred to the addition hopper (86 or 88); it is the addition hopper (86 or 88) which then actually delivers the catalyst to the FCC unit, as shown below.

> "Desirably, **an overhead monorail is provided to transport the fresh catalyst** bins from the staging area to a discharge area above the silos, as well as to transport the spent catalyst bins from the spent catalyst filling zone to the staging area." (column 4, lines 20-22)
>
> "The fresh catalyst bin is then lifted off the intelligence pad and raised to the underside of an overhead monorail 52 (FIG. 3) by the grab hooks 54 of a monorail transport carrier 56. The monorail transport carrier is operatively connected to the monorail trolley 58 by cables 60. The trolley and the grab hooks are operatively connected to the central processing unit and are remotely and automatically controlled. The trolley and grab hooks also have manual override safety controls." (column 6, lines 62-68)
>
> "Each fresh catalyst container is **carried by the overhead monorail** from the staging area facility to a remote control, computerized lift elevator 62 (FIG. 3). The lift elevator raises the fresh catalyst container to a monorail spur 52' or 52". The fresh catalyst container is **carried and transported by the trolley** on the monorail spur to a tilting mechanism and discharge assembly 64 or 66 (FIGS. 3 and 4) where the **fresh catalyst contents of the bin are dumped into one of two fresh catalyst silos 68 or 70** depending on the type (composition) of the catalyst. The empty fresh catalyst containers are returned to the staging area, catalyst vendors and suppliers by reversing the above procedure." (column 6, lines 3-15)
>
> "The fresh **catalyst is pneumatically conveyed from the silo through pneumatic transfer vessels 71-74 to a surge hopper 76 or 78 with nitrogen gas from nitrogen gas injectors 80. Smaller particles of the fresh catalyst are removed** by vibrating screens 82 or 84. The removed smaller particles are carried

> by nitrogen gas through a horizontal air slide to a vertical chute and loaded into spent catalyst containers 500 on intelligence pads 38 positioned on weight scales 40 and transported to the staging area and reclamation site in a manner similar to the spent catalyst containers loaded with deoiled catalyst. Larger particles of fresh **catalyst are passed to a storage hopper 86 or 88 from which they are fluidly conveyed to the reactors of a resid hydrotreating unit (RHU) by a heavy vacuum gas oil slurry.**(column 6, lines 16-30)

Furthermore, Erickson's Figure 3 also shows that Erickson's catalyst storage container (400) is just temporarily made mobile by being **carried and transported by a trolley**/monorail to a **fresh catalyst silos 68 or 70** and incapable of being adapted to control the flow of catalyst directly to the FCC unit and having a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir and a pressure control system coupled to the platform and the catalyst reservoir for controlling pressure within the catalyst reservoir because the container (400) fails to have the physical characteristics required to directly inject metered amount of catalyst under pressure to the FCCU (as previously described in the Declaration of Martin Evans). Hence, Erickson's catalyst must first be transferred to the addition hopper (86 or 88); it the addition hopper which is the injection system that adds the catalyst to the reactor.

A reference cannot be used to demonstrate obviousness and is not properly combinable or modifiable if the intended purpose is destroyed and teaches away. In this case, what is temporarily made mobile in Erickson is the catalyst container (400), not Erickson's injection device downstream of the silos 68 or 70. Erickson discloses sequentially and spatially separate aspects: from monorail to a silo; then from the silo to the injection device; and then from the injection device to FCC unit (i.e. from A to B to C to FCC Unit). Thus, Erickson's catalyst silos are neither mobile nor configured to be coupled to an FCC unit and incapable of being adapted to control the flow of catalyst directly to the FCC unit and having a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir and a pressure control system coupled to the platform and the catalyst reservoir for controlling pressure within the catalyst reservoir because the container (400) fails to have the physical characteristics required to directly inject metered amount of catalyst under pressure to the FCCU as described in the Declaration of Martin Evans. Such self limiting structural and functional restrictions of Erickson's catalyst transport container (400) are not just differences in degrees, but differences in kind which teach away from, is inoperable, and is not properly combinable or modifiable to disclose a catalyst

injection system that is mobile, and having a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir and a pressure control system without destroying Erickson's intended purpose. A contradictory and teaching away reference such as Erickson is not properly combinable or modifiable without destroying its intended purpose of sequentially and spatially separate aspects of catalyst delivery of from a truck or train to a catalyst transport container (400); then from the transport container to the non-mobile silos; then from the silos to an injection device, which actually delivers the catalyst to the FCC unit.

Thus, Applicant respectfully submits that the rejection is overcome and independent claims 1, 18, 22, and 26 are not obvious. Applicant respectfully submits that as the current independent claims are allowable, the claims which depend from the independent claims are also allowable.

The other claims are also not obvious because Ericson fails to disclose or suggest a catalyst injection system that is mobile and adapted to control the flow of catalyst directly to the FCC unit and also fails to disclose or suggest having a pressure control system and flow control device suitable for process control in the fluid catalyst cracking for a metered amount of catalyst.

Nonobviousness over Erickson in view of Comardo

Erickson and Comardo respectively fail to disclose or suggest a catalyst injection system that is mobile and adapted to control the flow of catalyst directly to the FCC unit and also having a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir and a pressure control system coupled to the platform and the catalyst reservoir for controlling pressure within the catalyst reservoir, as discussed above.

References cannot be combined or modified if there is no motivation to modify and intended purpose are destroyed and teaches away as discussed above. In this case, Erickson cannot be modified in view of Comardo because the self limiting structural and functional restrictions of Comardo and Erickson, either individually or in combination, are not just differences in degrees, but differences in kind which teach away. Erickson in view of Comardo

are neither catalyst injection system that is mobile nor configured to be coupled to an FCC unit and incapable of being adapted to control the flow of catalyst directly to the FCC unit and having a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir and a pressure control system coupled to the platform and the catalyst reservoir for controlling pressure within the catalyst reservoir because the container (400) fails to have the physical characteristics required to directly inject metered amount of catalyst under pressure to the FCCU as described in the Declaration of Martin Evans. Erickson's catalyst transport container (400) is not properly combinable or modifiable in view of Comardo to disclose a catalyst injection system that is mobile, and having a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir and a pressure control system without destroying Erickson's and Comardo's intended purpose.

Thus, Applicant respectfully submits that the rejection is overcome and independent claims 1, 18, 22, and 26 are not obvious. Applicant respectfully submits that as the current independent claims are allowable, the claims which depend from the independent claims are also allowable.

Nonobviousness over Erickson in view of Haugen

The claims 13-16, 31-32, 34 and 35 are not obvious over Erickson and Haugen because the references either individually or in combination, fail to disclose or suggest a catalyst injection system that is mobile and adapted to control the flow of catalyst directly to the FCC unit and also having a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir and a pressure control system coupled to the platform and the catalyst reservoir for controlling pressure within the catalyst reservoir.

Erickson fails to disclose or suggest a catalyst injection system that is mobile and adapted to control the flow of catalyst directly to the FCC unit and also having a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir and a pressure control system for controlling pressure within the catalyst reservoir, as discussed above.

Haugen also fails to provide the missing suggestion or motivation to modify to disclose a catalyst injection system that is mobile and adapted to control the flow of catalyst directly to the FCC unit and also having a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir and a pressure control system for controlling pressure within the catalyst reservoir. Each missing element independently refutes the unsupported allegations of obviousness.

Haugen only discloses top open measuring devices traveling in a circuit or rotating over a table and repeatedly emphasizes the rotating or circuit feature and only teaches passing of measured material to an open spout, as shown below:

> "In volumetric package filling machines, a hopper delivers fluent material into measuring devices traveling in a circuit over a table provided with a spout delivering to a carton or jar, or other container. With some materials and quantities, the number of packages that can be filled per minute becomes limited by the time required for the material to move through each measuring device." (Col 1 line 1-8)
>
> "The object of this invention is to avoid that limit. Generally speaking, this is accomplished by making a plurality of measuring devices work together on a desired quantity of material, each contributing its separate portion simultaneously with the other to make up the whole in correspondingly less time." (Col 1 line 1-8)
>
> "The base 10 of the machine carries a column 11 for supporting hoppers 12 and13, which deliver fluent material through a series of measuring devices, generally indicated by 14, rotating in a circuit over a stationary table 15 having a spout 16 adapted to deliver to a big carton, jar, or the like." (Col 1 line 36-42)
>
> The table 15 is provided with spaced discharge openings 26 and 27 through which the measured material passes to the arms or channels 28 of the spout 16, which is forked to make these channels lead from the discharge openings to a common delivery opening. (Col 1 line 50-56)

Haugen's teaching of top open measuring devices traveling in a circuit over a table to an open spout fails to disclose or suggest a catalyst injection system that is mobile and adapted to control the flow of catalyst directly to the FCC unit and also having a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir and a pressure control system because an open spout does not and cannot deliver catalyst to an FCC unit. The open

spout would just result in a spillage of the catalyst instead of a metered and pressure control delivery of catalyst to the FCC unit. Furthermore, Haugen's teaching of top open measuring devices also fails to disclose or suggest a pressurizable plenum as the open top does not disclose or allow a pressurizable plenum, as recited by claims 13-16. Such self limiting structural and functional restrictions of Haugen are not just differences in degrees, but differences in kind which teach away from a catalyst injection system that is mobile and adapted to control the flow of catalyst directly to the FCC unit and also having a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir and a pressure control system.

Thus, Haugen is inoperable and is not properly modifiable or combinable in view of Erickson to disclose *a pressurizable injection system that is mobile* and adapted to control metered flow of catalyst directly to the FCC unit, without destroying Haugen's intended purpose of an open top open spout non pressurizable system.

Regarding a plurality of compartments as recited by claims 13-16, 31-32 and 34-35, Haugen not only fails to disclose but actually teaches away from a plurality of compartments by repeatedly and explicitly disclosing a revolving rotating measuring device, as disclosed above.

As such, Erickson and Haugen, either individually or combined, not only fail to suggest all the claimed elements but actually teach away and do not establish a *prima facie* case of obviousness.

Nonobviousness over Andon in view of Haugen

Claims 19-21, 23-25 and 33 are not obvious over Andon (US 4082513) in view of Haugen (US 2616591) because the references in combination fail to disclose or suggest a catalyst injection system that is mobile and adapted to control the flow of catalyst directly to the FCC unit and also having a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir and a pressure control system.

Andon fails to disclose or suggest a catalyst injection system that is mobile and adapted to control the flow of catalyst directly to the FCC unit and also having a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir and a pressure control system, as discussed above.

Haugen fails to provide the missing elements or motivation to modify. As discussed above, Haugen fails to disclose or suggest a catalyst injection system that is mobile and adapted to control the flow of catalyst directly to the FCC unit and also having a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir and a pressure control system coupled to the platform and the catalyst reservoir for controlling pressure within the catalyst reservoir because an open spout does not and cannot deliver catalyst to an FCC unit. The open spout would just result in a spillage of the catalyst instead of a metered and pressure control delivery of catalyst to the FCC unit. Furthermore, Haugen's teaching of top open and open spout measuring devices also fails to disclose or suggest a pressurizable plenum as the open top does not and cannot allow a pressurizable plenum, as recited in claims 19-21, 23-24 and 33. Such self limiting structural and functional restrictions of Haugen are not just differences in degrees, but differences in kind which teach away from a catalyst injection system that is mobile and adapted to control the flow of catalyst directly to the FCC unit and also having a flow control device for dispensing a metered amount of catalyst from the catalyst reservoir and a pressure control system.

Regarding a plurality of compartments as recited in claims 19-21, 23-24 and 33, Haugen not only fails to disclose but actually teaches away from a plurality of compartments by repeatedly and explicitly disclosing a revolving rotating measuring device, as disclosed above.

As such, Andon and Haugen references, either individually or combined, fail to disclose or suggest all the claimed elements and do not establish a *prima facie* case of obviousness. Consequently, Applicants respectfully submit that the independent claims are not obvious. As current independent claims are allowable, the claims which depend from the independent claims are also allowable.

CONCLUSION

Thus, the Applicant submits that all claims now pending are in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issuance are earnestly solicited. If, however, the Examiner believes that any unresolved issues still exist, it is requested that the Examiner telephone Tanzina Chowdhury at (732) 292-5042 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

Nov. 7, 2008

TANZINA CHOWDHURY
Attorney Reg. No. 46,624
Intercat, Inc.
Manasquan, NJ 08736
(732) 292-5042

Nov 10, 2008

KEITH TABOADA
Attorney Reg. No. 45,150
Patterson & Sheridan, LLP
Shrewsbury, NJ 07702
(732) 530-9404